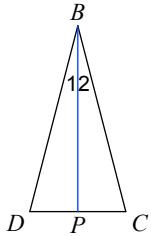


### 3.2 Angle Pairs

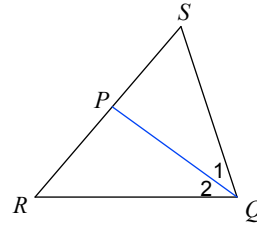
Date \_\_\_\_\_ Period \_\_\_\_\_

Each figure shows a triangle with one of its angle bisectors.

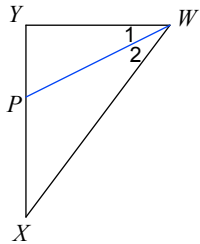
- 1) Find  $m\angle I$  if  $m\angle DBC = 28^\circ$ .



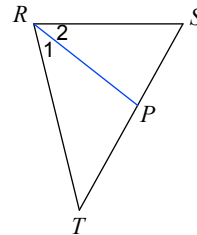
- 2) Find  $m\angle 2$  if  $m\angle SQR = 72^\circ$ .



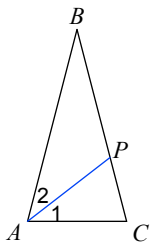
- 3) Find  $m\angle YWX$  if  $m\angle I = 26^\circ$ .



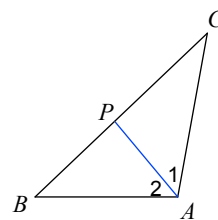
- 4)  $m\angle 2 = 38^\circ$ . Find  $m\angle I$ .



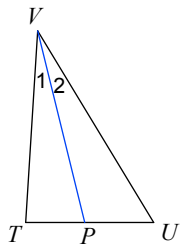
- 5)  $m\angle 2 = 3x + 11$  and  $m\angle I = 4x + 2$ .  
Find  $m\angle I$ .



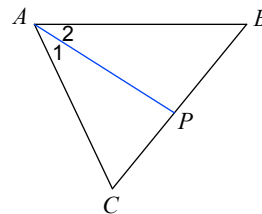
- 6) Find  $m\angle CAB$  if  $m\angle 2 = 26x - 2$  and  
 $m\angle CAB = 51x - 2$ .



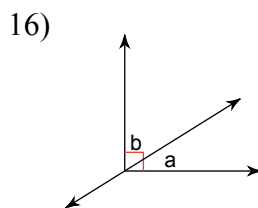
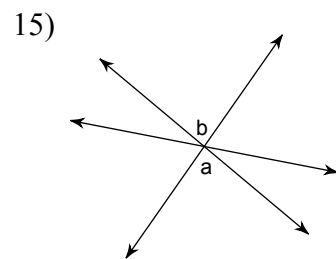
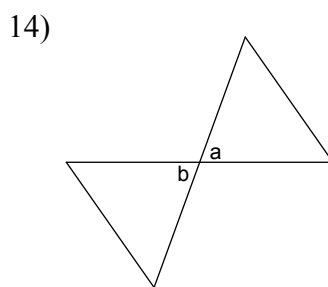
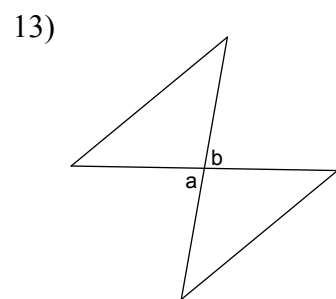
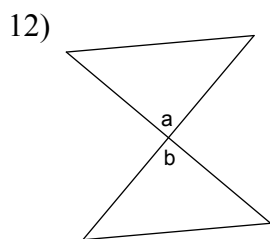
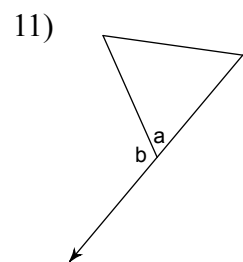
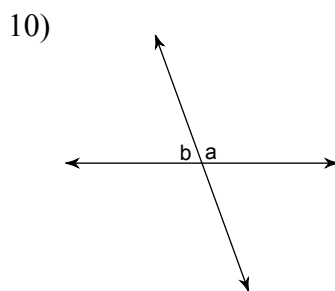
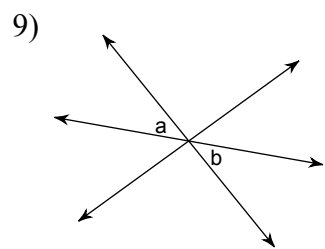
- 7)  $m\angle I = 3 + 7x$  and  $m\angle 2 = 9x - 1$ .  
Find  $m\angle TVU$ .



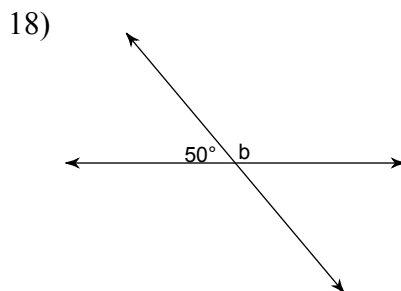
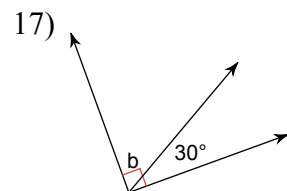
- 8)  $m\angle I = 3x + 8$  and  $m\angle 2 = 5x - 8$ .  
Find  $m\angle 2$ .



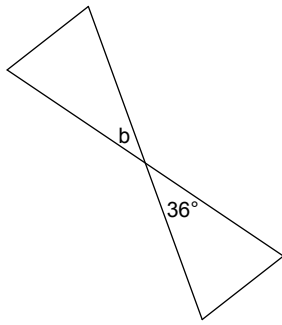
Name the relationship: complementary, linear pair, or vertical.



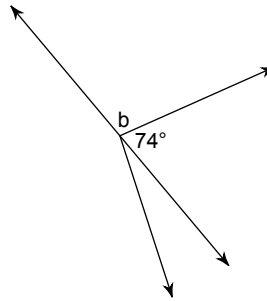
Find the measure of angle b.



19)

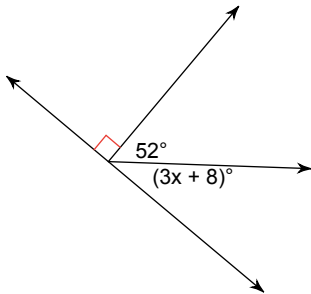


20)

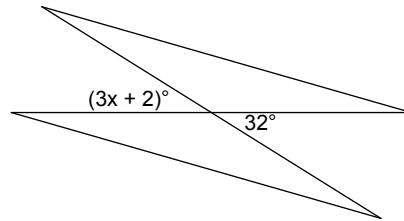


**Find the value of x.**

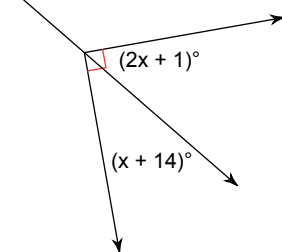
21)



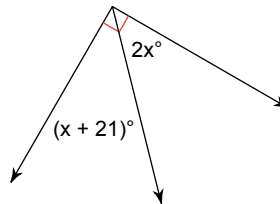
22)



23)



24)



## Answers to 2.2 Angle Pairs (ID: 1)

- |                |                 |                 |                   |
|----------------|-----------------|-----------------|-------------------|
| 1) $14^\circ$  | 2) $36^\circ$   | 3) $52^\circ$   | 4) $38^\circ$     |
| 5) $38^\circ$  | 6) $100^\circ$  | 7) $34^\circ$   | 8) $32^\circ$     |
| 9) vertical    | 10) linear pair | 11) linear pair | 12) vertical      |
| 13) vertical   | 14) vertical    | 15) vertical    | 16) complementary |
| 17) $60^\circ$ | 18) $130^\circ$ | 19) $36^\circ$  | 20) $106^\circ$   |
| 21) 10         | 22) 10          | 23) 25          | 24) 23            |